DOCUMENT RESUME

ED 260 980 SO 016 765

AUTHOR Demery, Marie
TITLE XIOPP: An Artistic Approach to Creativity, Xerography and Visual Literacy.
PUB DATE 85
NOTE 28p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Art; *Art Appreciation; *Art Expression; Color; *Creativity; Guides; Models; Technological Advancement; *Technology; *Visual Arts
IDENTIFIERS *Xerography

ABSTRACT

Xerography is one of the major channels through which a union in art and technology can be achieved. As a result of a three-year research study of xerography and such a union, the following examples have been developed: XIOPP Model, art historical perspective, visual literacy exhibition and vocabulary. The XIOPP Model is an illustration and summary of the integrated processes of creativity, xerography, and visual literacy. The art historical perspective is a clarification of the processes and components of the model. A complement to the historical data and to the processes, the visual literacy exhibition in this article is an introduction to the use of a viewing guide. The guide will help viewers to acquire and use the visual skill of originality for seeing, evaluating, and appreciating 12 works of art and the environment beyond this exhibit. New vocabulary has been defined: visual literacy exhibition, XIOPP, ink drawing print, ink oil painting print, xerography, copy art, viewing guide. Established vocabulary has been redefined: originality, creativity, visual literacy. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED260980

XIOPP: An Artistic Approach to Creativity, Xerography and Visual Literacy

Marie Demery, Ph.D.
Texas College

1985

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Marie Demery
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

SP 016 765

Running head: XIOPP

Abstract

Xerography is one of the major channels through which a union in art and technology can be achieved. As a result of a three-year research study of xerography and such a union, the following examples have been developed: XIOPP Model, art historical perspective, visual literacy exhibition and vocabulary. The XIOPP Model is an illustration and summary of the integrated processes of creativity, xerography and visual literacy. The art historical perspective is a clarification of the processes and components of the model. A complement to the historical data and to the processes, the visual literacy exhibition in this article is an introduction to the use of a viewing guide. The guide will help viewers to acquire and use the visual skill of originality for seeing, evaluating and appreciating 12 works of art and the environment beyond this exhibit. New vocabulary has been defined: visual literacy exhibition, XIOPP, ink drawing print, ink oil painting print, xerography, copy art, viewing guide. Established vocabulary has been redefined: originality, creativity, visual literacy.

XIOPP: AN ARTISTIC APPROACH TO CREATIVITY, XEROGRAPHY AND VISUAL LITERACY

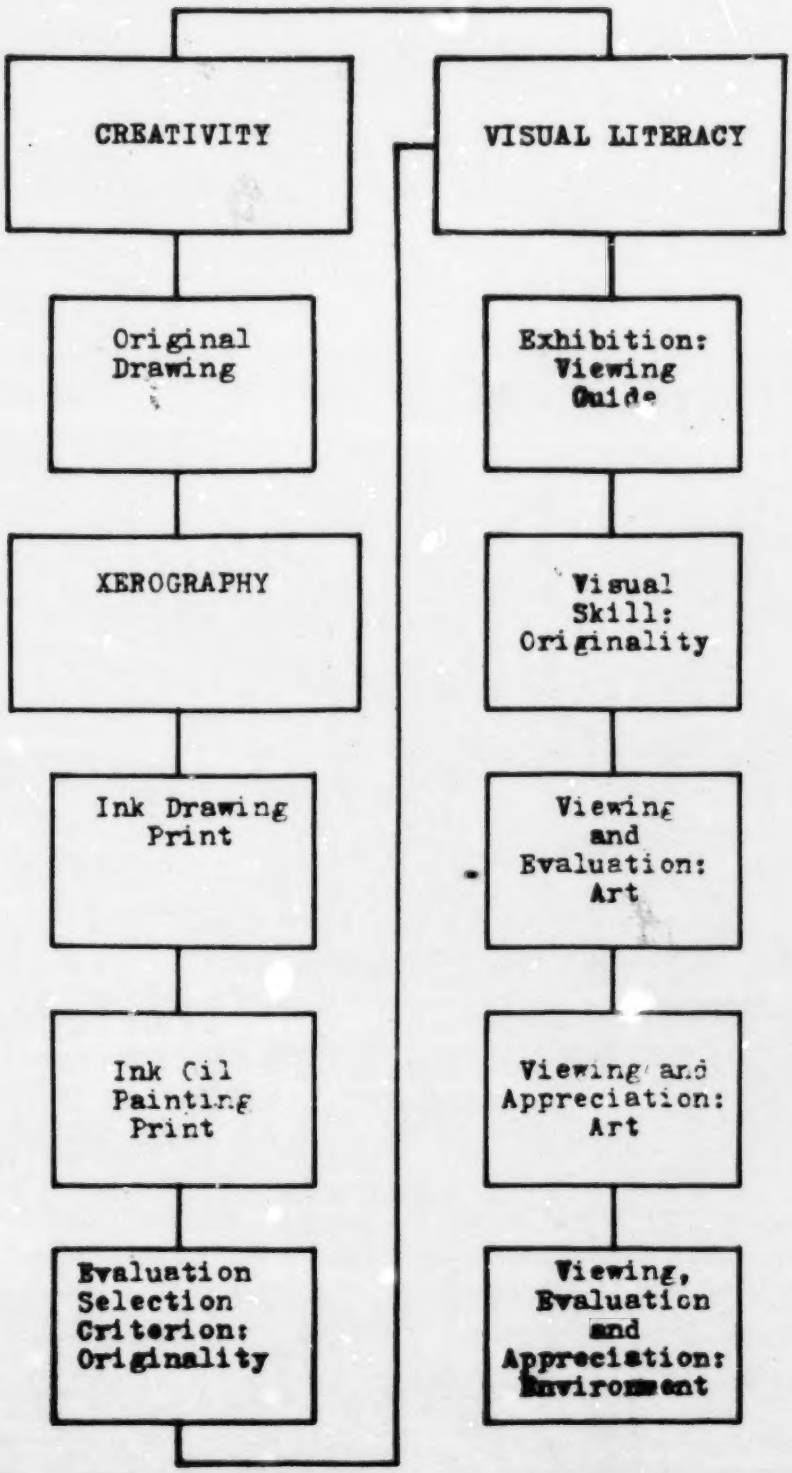
The following data and works of art (Figs. 1-12) are the result and continuation of a three-year research study of combining art and technology. The initial idea for this study evolved when I did a quick interpretative sketch of a magazine photograph of an elderly man sitting on his porch (Figs. 1-3). Interpretative means that--through the use of a rapidiograph pen--there is a selection and rendering of the essential elements of a subject. Unfortunately, I created the interpretation on the back of an ineffective drawing. The idea and solution appeared immediately. Use a photocopy machine. From the inception of this idea to now, I have been creating with any medium and on any kind of paper, because ultimately the effective drawing will be photocopied, transferred into several prints, and further developed through other techniques and in other media. The best of these products will be properly prepared for visual literacy exhibitions. Visual literacy exhibitions are representative of a combination of the verbal and the visual: designed viewing guides and art. Through the use of viewing guides, the exhibitions will motivate viewers to see, evaluate and value these unions between art and technology.

XIOPP Model

As a result of this three-year research study, a XIOPP Model has been designed. XIOPP (zee-oph) is an acronym for xerography, ink drawing and oil painting prints. The model (page 4) is an illustration and summary of the integrated processes of creativity, xerography and visual literacy. These integrated processes consist of ten components.

1. Original Drawing. An original drawing has been created with any kind of material and on any given surface (Figs. 1, 4, 7, 10).
2. Xerography. Through the use of a copier machine, several prints of the original drawing have been produced.
3. Ink Drawing Print. The rapidiograph pen has been used to draw over the lines of all prints for two reasons:
   a) not all copier machines will produce permanent copies;
   b) the addition of the ink will produce rich black lines and/or enhance the black images of the prints (Figs. 2, 5, 8, 11).
4. Ink Oil Painting Print. One or more of these ink drawing prints has been transformed into an oil painting on paper (Figs. 3, 6, 9, 12).

XICPP Model


CREATIVITY
VISUAL LITERACY
Original Drawing
Exhibition: Viewing Guide
XEROGRAPHY
Visual Skill: Originality
Ink Drawing Print
Viewing and Evaluation: Art
Ink Oil Painting Print
Viewing and Appreciation: Art
Evaluation Selection Criterion: Originality
Viewing, Evaluation and Appreciation: Environment

XIOPP Model (cont'd.)

5. Evaluation Selection Criterion: Originality. As a result of the preceding steps, a series of two or more prints has been created for each original drawing. Originality, as evaluation criterion, has been used to select the most effective print series for the visual literacy exhibition at the end of this article. Originality is an unusual image that reflects unity and the skillful use of technique(s) and materials. The umusual image may also reflect one or more of the following: an uncommon arrangement, redefinition, combination or emphasis of familiar and unfamiliar shapes; a surprise and/or satisfying result for the creator and viewer.
6. Exhibition: Viewing Guide. A one-page viewing guide (page 18) has been designed for the 12 works of art in this exhibit. The viewing guide is composed of four parts:
   a) Definition of Originality;
   b) Evaluation of Art;
   c) Appreciation of Art;
   d) Viewing, Evaluating and Appreciating the Environment.
7. Visual Skill: Originality. Viewers, through the use of the viewing guide, will acquire and use originality as a visual skill and evaluation criterion.

XIOPP Model (cont'd.)

8. Viewing and Evaluation: Art. Viewers, through the use of a rating scale in the guide, will determine which is the most unusual work of art in each series.
9. Viewing and Appreciation: Art. Viewers, through the use of the appreciation section of the guide, will select one favorite work of art from the drawings and prints.
10. Viewing, Evaluation and Appreciation: Environment. Viewers, through referral to the questions in the guide, will use the acquired skill beyond the ambiance of this exhibit for positively and perceptually relating to themselves, others and their environment.

Art Historical Perspective

Observation has confirmed that background data become more meaningful after the presentation of a demonstration or process. The following art historical perspective has been developed in five sections:

- Drawing;
- Xerography;
- Paper and Conservation;
- Creativity, Originality and Visual Literacy;
- Viewing Guide.

Drawing

Unlike other independent forms of expression drawing has a short history. Pre-Renaissance drawing was used as a preliminary guide to the creation of murals, sculpture, and illustrations for hand-lettered manuscripts and books. It was not until the 15th century Italian Renaissance that this linear technique was accepted as an art in itself. This recognition was due in part to printmaking which permitted duplication and dissemination of the art. Drawing, however, was not fully developed until the 17th century through such artists as Rembrandt and Rubens. Then in the later 19th and early 20th centuries, the technique, as a complete art form, became a greater means of subtle, flexible, and bold expression than painting or sculpture. Such independent, spontaneous expression can be perceived in the works of Picasso, Matisse, Klee, Kollwitz, White, and Carter. Whereas, in this research study, drawing--in reverse roles--is a combination of the Renaissance and Pre-Renaissance approaches: complete independent art form; preliminary stage to other techniques (ink drawing and oil painting).

Xerography

Dissatisfied with the blurred carbon sheet duplication of records, the physicist and patent attorney Chester F. Carlson invented xerography in 1938. He derived the term from the Greek xero, meaning dry, and graphein, to write. In the 1940s Carlson received a patent for xerography and, for its development, made agreements with the Battelle Memorial Institute and the Haloid Company. Haloid, later to become Haloid-Xerox, and then the Xerox Corporation, introduced the 914 copier in 1959 and the Model 6500 color copier in 1973. The development of xerography became a revolution in the business and communication worlds, new tools for artists and a sizable wealth from royalties for Carlson.

Unlike traditional printmaking, xerography is a dry printmaking method of producing permanent copies of sharp images and type from an original without the use of pressure, ink or photographic liquid chemicals. Instead, in a simplified explanation of the less than a minute process, a lens projects the image from an original copy onto an electrostatically charged drum coated with metallic selenium. A mechanism sprinkles dry ink toner powder on the drum; the powder adheres only to the dark parts of the image. The drum then rolls the powder onto electrostatically charged paper which receives a blast of heat, making the image permanent.

Xerography (cont'd.)

Appreciable numbers of artists in the early 1960s began to use and experiment with copy machines in such locations as grocery stores, demonstration centers and their own homes. Although the machines were designed specifically for the business world, these artists produced amazing products and categories of copy art. Firpo, Alexander and Katayanagi (1978) defined copy art as "anything that has been created, transformed, or enhanced through the use of a copy machine" (p. 87).

Unfortunately, the early copy artists created in isolation. There is no documentation of the individual or group who initiated (and began to develop) the concept of copy art. There is presently no professional association for this less than 20-year old still developing independent art-technology. Nevertheless, this highly personal, expressive and diversified way of creating is in gallery exhibits and is a part of the permanent collections of major museums.

The Xerox Corporation, in 1980, funded the first major exhibition of copy art at the International Museum of Photography at the George Eastman House in Rochester, New York.

Xerography (cont'd.)

The exhibition, entitled Electroworks, presented 245 prints (by 85 artists) from the following categories:

1) Direct transfer and transformation, "a base or starting point for painting or drawing or as an extension of painting" (Hill, 1980, p. 205);
2) Direct imaging, placing three-dimensional objects on the document glass or platen of the copier;
3) Portraits, placing own face or faces of friends, models on the document glass or platen of the copier;
4) Collages created at the machine;
5) Heat transfer to T-shirts, jewelry, quilts, books, and sculpture;
6) Using slides to transfer imagery to another surface, most effectively through the use of the XEROX 6500 color copier and slide attachment.

This research study, now in its early stages, is reflective of only the first category of copy art: direct transfer and transformation. This limitation is because of the inaccessibility of Xerox equipment. In fact, all of the art in this article has been produced through the xerographic (dry) process of the Mita DC-232, a Kwik-Kopy Print Shop black and white machine.

Xerography (cont'd.)

Future work in this area of research, however, will include the XEROX 6500 color copier and other inventions directly from the Xerox Corporation. Notably, machines and equipment have been selected from this corporation for several reasons:

1) Dry process of printing, without the use of photographic liquid chemicals;
2) Use of ordinary paper and/or other materials for printing purposes;
3) Sharp, detailed resolution of type and imagery;
4) Permanent black and white and color printed copies.

Paper and Conservation

China is the birthplace of paper. T'sai Lun, an official in the Royal Court of Ho Ti, has been regarded as the inventor of paper in 105 A.D. A recent discovery, however, has revealed the existence of this material before the birth of Christ. The oldest piece of paper in the world, dating back to the 2nd Century B.C., has been found in a tomb at Pa-ch'iao in the Shensi provice of northern China.

In addition, from December 7, 1984 to February 17, 1985, the Pierpont Morgan Library (New York City) presented an exhibition of Italian manuscript paintings on paper, dating back to the 1300 century. Then based on a historical perspective, paper, with proper care, can last intact just as

Paper and Conservation (cont'd.)

long as the other established artistic materials such as canvas. Further confirmation of this factor is evident in other existing works of art on paper from such past and present masters as Hans Holbein the Younger, Rembrandt, Delacroix, Lautrec, White, Stella, and Carter.

Thus, the longevity of works of art on paper will be enhanced by knowledge and practice of some or all of these five conservation principles.

1. Paper. The only paper that has the least amount of longevity is newsprint (composed of wood pulp) which will become dark and brittle, deteriorating within a few years. Better grades of wood pulp will last longer with proper care. Whereas, paper, composed of 100 percent rag, will provide the greatest degree of longevity.
2. Preparation for Displays. For the matting of a drawing or print, select only all-rag museum matte board with acid-free paper for backing, etc. When attaching the art to another surface, use only starch-based or gummed hinges, and never use pressure sensitive tapes and photographic mounting tissues. Never place a drawing directly behind a frame and glass; instead, place a matte board between it and the art. If art is to be framed without a matte board, use plexiglass because of the low condensation that occurs with this material.

Paper and Conservation (cont'd.)

3. Lighting and Hanging. With time most drawings and prints will fade in degrees, due to exposure to light. Yet a certain amount of controlled lighting will reduce this inevitable fading process. The same amount of light that is required for reading is also the most effective for art on paper. Then if possible, avoid hanging art on paper in intense light or under office white florescent systems for long periods of time. In addition, avoid hanging this art on interior-outside walls because of the likely presence of extreme degrees of humidity and temperature.
4. Storage. If drawings or prints are to be wrapped for storage purposes, make sure that such wrappings are acid-free. Once wrapped, avoid storage in areas of high humidity and infested with silverfish, termites, flies, roaches, and woodworms.
5. Xerographic Process. The significance of the xerographic process is that an image, with little alteration, can be successfully transferred to another surface. Three of these drawings (Figs. 4, 7, 10) in this article have been created on newsprint. Yet longevity has been established through the transferral of the created image from newsprint to a better quality of wood pulp copier paper. Then, because of its process of image-transfer to a more durable

Paper and Conservation (cont'd.)

surface, xerography is another important technique for the conservation of art on paper.

Creativity, Originality and Visual Literacy

Creativity, originality and visual literacy are complements. Creativity is an original form of perception, idea, process, and product; it is the initial means of perceiving, forming, completing, and evaluating a work of art. With a dual purpose, originality is the link between creativity and visual literacy. As an evaluation criterion, this link will determine the creative validity of the product. As a visual skill and criterion, it will allow an artist and viewer to perceive and evaluate the creative validity of the product in a different environment--the visual literacy exhibition. Visual literacy is a replication of creativity and originality. This kind of literacy is post-perception and post-evaluation. The work of art has been created and prepared for an exhibition. How will it be viewed and evaluated?

There are many definitions for visual literacy. However, only two relevant, operational definitions have been selected for the objectives of this study.

Visual literacy originated in 1966 with the thinking of John L. Debes and his affiliation with Eastman Kodak. Three

Creativity, Originality and Visual Literacy (cont'd.)

years later, the National Conference on Visual Literacy developed this definition:

> Visual literacy refers to a group of vision competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, and symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication (Debes, 1969, p. 27).

The other selected definition for visual literacy is a summary of the preceding:

> The ability to use our eyes for more than superficial observation of the world around us (Chapnick, 1983, p. 22).

Viewing Guide

The visual literacy exhibition is an introduction to the use of a viewing guide (page 18). Designed specifically for the exhibition, the guide has three major purposes: research, motivation and documentation.

The viewing guide is a modification of the Likert-type rating scale, a highly recommended research tool for visual literacy studies. Through the use of this guide, there will be a coordination of the rich sources of visual literacy: empirical, cognitive research, past and present art techniques,

Viewing Guide (cont'd.)

forms, and technological innovations. Although this instrument has been constructed for the college age, it can be used and modified with any group. Parents, for example, can use it to motivate their very young to perceptually and tactually interact with this series of art-technology.

Then the motivational element of the guide will introduce viewers to the visual literacy process of detailed, non-glancing, perceiving and touching of these drawings and prints. The guide, like the camera, will motivate viewers to focus, acquire and use a specific visual skill and evaluation criterion, originality. Such focusing, if only for a few seconds, will enable them to see, touch and evaluate what they would not have seen through a mere glance. Because viewers will find the guide to be interesting and easy to use, they will also be motivated to study this art at their own pace. Their responses will not be considered right or wrong, only a heightened perceptual, aesthetic and subjective interaction. In addition, questions in the last section of the guide will encourage viewers to use the visual skill for seeing and evaluating themselves, others, and their environment beyond the work in this article.

For reporting the results of this viewing activity, the guide will also serve as a simplified form of documentation. No statistical numbers have been assigned to any category or

Viewing Guide (cont'd.)

item in the instrument. Instead, each checkmark and response to items will be calculated as a numerical "1." For example, the evaluation section may equal to a total of 12 points which may be distributed in greater or lesser numbers in the category of the unusual or undecided or not unusual.

The following exercise--viewing guide and art--will become a vital combination of the verbal and visual comprehension of a cultural achievement--12 works of art. The viewing guide then will be a reflection of three objectives, for participants will--

1. View the art in terms of the operational definition of originality as a visual skill and an evaluation criterion.
2. Translate from the verbal to the visual and vice versa while reading content of guide and viewing imagery in this art.
3. Use the originality definition to study, evaluate, and appreciate themselves, others, and their environment beyond these drawings and prints.

Visual Literacy Viewing Guide

Originality is an unusual image that reflects unity and the skillful use of technique(s) and materials.

Part I--Evaluation of Art

Using the above definition of originality, view and evaluate the following drawings and prints. Please give us your true responses to this art, not what you think that we want you to express. Check blanks below.

	Unusual	Undecided	Not Unusual
Man Sitting			
1. Ink Drawing	( )	( )	( )
2. Pencil Crosshatching Drawing Print	( )	( )	( )
3. Ink Oil Painting Print	( )	( )	( )
Frontal Portrait			
4. Ebony Pencil Drawing on Newsprint	( )	( )	( )
5. Ink Drawing Print	( )	( )	( )
6. Ink Oil Painting Print	( )	( )	( )
Mustache Portrait			
7. Ebony Pencil Drawing on Newsprint	( )	( )	( )
8. Ink Drawing Print	( )	( )	( )
9. Ink Oil Painting Print	( )	( )	( )
Profile Portrait			
10. Ebony Pencil Drawing on Newsprint	( )	( )	( )
11. Ink Drawing Print	( )	( )	( )
12. Ink Oil Painting Print	( )	( )	( )

Part II--Appreciation of Art

View again the entire collection. Select one favorite work of art from the drawings and prints.

Number_____

Part III--Evaluation and Appreciation of Environment

How will you use the definition of originality in this guide to view, evaluate and appreciate yourself, others, and your environment? For example, what will you see or consider as positively unusual about yourself, others, and your environment?

Comments.

Thank you.

1

2

3

21

Visual literacy Exhibition

KICFF
19

22

4

5

6

7

8

9

10

11

12

Selected Bibliography

Barley, Steven D. A new look at the loom of visual literacy. New York: Eastman Kodak Co., 1971. (ERIC Document Reproduction Service No. ED 057 585).

Barley, Steven P., & Bale, Richard R. (Eds.). The elephants of visual literacy. Rochester, New York: Eastman Kodak Co., 1971. (ERIC Document Reproduction Service No. ED 057 591)

Bradley, William R. Intrinsic feedback and its effects upon aesthetic growth. Studies in Art Education, 1969, 10(2), 41-49.

Chapnick, Howard. Markets & Careers: Treatise on today's ethics. Popular Photography, 1983, 90(10), 22, 24.

Debes, John L. The loom of visual literacy. Audiovisual Instruction, 1969, 14(8), 25-27.

Demery, Marie. The art appreciation component of visual literacy: Examples of guided approaches to viewing art. Paper presented at the NAEA 25th Annual Convention, Dallas, Texas, April 20, 1985. (ERIC Document Reproduction Service No. 245 953)

Dolloff, Francis W., & Perkinson, Roy L. How to care for works of art on paper. American Artist, 1972, 36(262), 30-34, 77-78.

Drawing. Encyclopedia of world art (Vol. IV). New York: McGraw-Hill Book Company, Inc., 1962, 459-462.

Drawing. The Lincoln Library of the arts (Vol. I). Columbus, Ohio: The Frontier Press Company, 1973, 303-323.

Eisner, Elliot W. Educating artistic vision. New York: The Macmillan Company, 1972.

Fillion, Bryant. Visual literacy. The Clearing House, 1973, 47(5), 308-11.

Firpo, Patrick, Alexander, Lester, & Katayanagi, Claudia. Copyart: The first complete guide to the copy machine. New York: Richard Marek Publishers, 1978.

Fransecky, Roger B., & Debes, John L. Visual literacy: A way to learn--A way to teach. Washington, D.C.: Association for Educational Communications and Technology, 1972. (ERIC Document Reproduction Service No. ED 064 884)

Gotz, Ignacio L. On defining creativity. British Journal of Aesthetics, 1981, 39(3), 297-301.

Griffith, Jerry, & Miner, L. B. Methodological considerations in visual literacy research. Audiovisual Instruction, 1972a, 17(5), 36-40.

_____ Visual literacy research guidelines. Audiovisual Instruction, 1972b, 17(5), 30-35.

Hartmann, Sadakichi. On originality. Camera, April 1974, 53, 45.

Hastie, Reid, & Schmidt, Christian. Encounter with art. New York: McGraw-Hill Book Company, 1969.

Hill, Pati. Dear Jill. PCN, January 1980, 10, 204-5.

Hoaglund, John. Originality and aesthetic value. British Journal of Aesthetics, 1976, 16(1), 46-55.

Italian manuscript painting: 1300-1550; The Pierpont Morgan Library, NYC; December 7 - February 17, 1985. Vogue, 1984, 174(12), 78.

Kent, Norman. A brief history of papermaking. American Artist, 1967, 31(8), 36-41, 82.

McCray, Marilyn. Electroworks. Rochester, New York: International Museum of Photography, George Eastman House, 1979.

Mechanizing the muse. Art News, 1980, 79(2), 6, 8.

Mitias, Michael H. The institutional theory of artistic creativity. British Journal of Aesthetics, 1978, 18(4), 330-41.

Morris, William (Ed.). Xerox. Morris dictionary of word and phrase origins. New York: Harper & Row, Publishers, 1977, 612.

Myers, Bernard S. (Ed.). History of Drawing. McGraw-Hill Dictionary of Art (Vol. 2). New York: McGraw-Hill Book Company, Inc., 1961, 459-462.

Out to crack copying market. Business Week, September 19, 1959, 86, 89-90, 93.

Purvis, J. R. Visual literacy: An emerging concept. Educational Leadership, 1973, 30(8), 714-16.

Rosen, Roberta, & Pristone, Isabelle. A creative response to visual literacy in the mainstream--Not for learning disabled only. Paper presented at the 21st Annual Meeting of the International Reading Association. Anaheim, CA, May 1976. (ERIC Document Reproduction Service No. ED 132 521)

Sawyer, Helen. Painting in oil on paper. American Artist, 1964, 28(1), 44, 46, 49.

Shapiro, Stephen, & Noenning, Anita G. How to conserve works of art on paper. Fiberarts, 1984, 11, 46.

Sless, David. Visual literacy: A failed opportunity. Educational Communications and Technology Journal, 1984, 32(4), 224-228.

Sutherland, Sandy. The technique of painting in oil on paper. American Artist, 1968, 32(8), 46, 48-49.

Torrance, Ellis Paul. Creativity. Washington Department of Classroom Teachers, American Educational Research Association of the National Educational Association, 1963.

Tsien, Tsuen-Hsuin. China: True birthplace of paper, printing and movable type. The UNESCO Courier, 1972, 11, 4-11.

Van Doren, Charles (Ed.). Chester Floyd Carlson. Webster's American Biographies. Springfield, Massachusetts: G. & C. Merriam Company, Publishers, 1974.